VIII. Hardware Specification

The following gives information on the technical and hardware specifications of your Ken-A-Vision M◈Eye. Please note that the information mentioned here may not be exactly the same with your Ken-A-Vision M◈Eye.

Camera as specification is subject to change without notice.

Camera Type	1.3 M◈Eye
Cable	2 meter USB
Aperture Range	F2.8 and 8.0
Resolution	1280 x 960, 1024 x 768, 640 x 480
Auto Exposure	Yes
White Balance	Yes
Battery	(4) AAA
Internal memory	16MB
Memory Capacity	20 pictures @ SXGA (1280 x 960) 90 pictures @ XGA (1024 x 768) 220 pictures @ VGA (640 x 480) 70 Second video recording 67 minute voice recording
LCD Indicator status	Mode, Flash, Audio, and Speaker
Flash Modes	Red eye reduction, auto and standard
Microscope Adapter	28mm included
Software	Photo Suite III Video Wave Vision Explorer®
Operating System	Win 98, Win 2000, Win ME, Win XP
Computer	Pentium 166MMX minimum (266 MHz) recommended, 32MB of RAM, XVGA video card, 2 MB Video RAM, 200 MB Hard Drive space

Ken-A-Vision reserves the right to make design improvements and other changes in accordance with the latest advances in technology. There is no obligation to make changes in products already manufactured. Patents Pending. ©2002 Ken-A-Vision Corporation

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Ken-A-Vision M◈Eye Digital Camera

User's Manual

Model: M2013

Contents

I. Parts of Ken-A-Vision M◈Eye Camera……p.3

II. User Interface Description……p.4

III. Software Installation……p.9

IV. Vision Explorer……p.12

V. Photo Suite III……p.14

VI. Video Wave……p.16

VII. Safety & FAQ……p.18

VIII. Hardware Specification……p.20

7.2 Frequently Asked Questions (FAQ):

Following are some basic troubleshooting tips regarding Ken-A-Vision M◈Eye hardware or software problems:

Symptom	Solution
Windows does not detect my Ken-A-Vision M◈Eye during first-time installation	• Check connection if Ken-A-Vision M◈Eye is properly plugged-in. Unplug and replug the camera. • Check the BIOS Setup of the computer if there is any settings that can enable or disable the USB port or controller. • Check if the USB controller device is installed and working properly. Go to Control Panel-System-Device Manager and check for the device "Universal serial controller" if it is installed and has no conflict. Contact your computer dealer on how to fix USB controller device conflict.
Windows reports that there is no video capture adapter	• Same as above.
The color display is bad	• Check the Display Properties if the color is set at High Color (16-bit), True Color (24-bit), or True Color (32-bit)---recommended. • Check if the VGA driver of the computer is properly installed.
Driver Installation cannot be completed	• Check the driver CD if it is dirty or cannot be read. • Contact your Ken-A-Vision M◈Eye dealer for a copy of the CD or an update driver.
Captured video appears to be slow or dropping frames	• The CPU in your computer may be very busy. Try to close other programs. • Your memory resource may be running low. Restart your computer and run the capture program again.

VII. Safety & FAQ

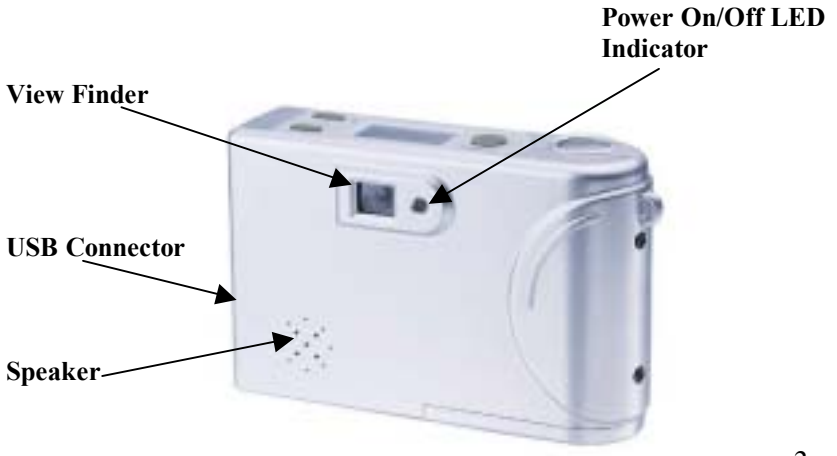
This chapter provides some basic troubleshooting when you encounter problems installing or using the camera. It is important that you read first the previous chapters and the bundled software documentation before starting to find the problem. If this manual was not able to fix your problem, please contact the dealer or manufacturer for customer support.

7.1 General Maintenance and Safety

Following are some troubleshooting tips regarding Ken-A-Vision M◈Eye hardware problems:

1. Avoid exposing the camera to moisture and extreme temperature.
2. Do not touch the lens with your finger.
3. Do not put things on top of it or apply pressure on it.
4. Clean the camera using a clean, dry cloth. Do not use harsh or abrasive solvents or cleaners.
5. When cleaning the lens, use a soft, lint-free cloth. Do not apply pressure on the lens. Moisten the lens by breathing gently on it. Avoid scratching the lens of the camera.
6. Do not try to pull or twist the cable of the camera as this might damage it.
7. Do not disassemble or try to touch the inside of the camera. This will void the warranty of your camera and may damage it consequently.
8. Store camera in a clean and dry place.

I. Parts of Ken-A-Vision M◈Eye



II. User Interface Description

2.1 Buttons

There are 4 buttons on the camera

To delete Photos from camera memory, press and hold the Snap and Mode buttons Simultaneously for 3 seconds.

Power On/Off Button

This button is used to turn on/off the camera while the camera is detached from a PC. Turning off the camera will switch to power saving mode and make the battery life longer. *NOTE: While attached to PC, the button has no function even if you press it. The camera utilized power from the computer when connected to the PC.*

Snap Button

Snap shot button is for taking pictures or video. This is a 2 stage button. Pressing the button half way is the 1st stage. The camera will make the necessary adjustment for flash and exposure. Pressing the button completely, the picture or video will be taken provided the camera is ready. (*The LED light next to view finder will be on when the power is on and the camera is ready*).

Mode Buttons

A. Operation mode button: This button will toggle between the 8 modes of operation:

- Single shot High quality (1024 x 768)
- Single shot Normal quality (640 x 480)
- Single shot Super High quality (1280 x 960)

6.3 Icons

Cutting Room ; Save image, divide video file and extract sound.

Dark Room ; Control the Brightness, Contrast and Hue.

Special Effects ; Swirl, Spherize, Brighten, Tile, Relief, Ripple images.

Text Animator ; Put the text in the moving images.

Transitions ; Set the transition pattern between files.

Video Animator ; blend or fade one video file over another.

Audio Studio ; Add sound to your video files.

Output to Video ; play a video file full-screen on a monitor or output the file to tape.

Menu ; Pull down the menus.

New Production ; Produce new file.

Open Production ; Open files.

Save ; Save files.

Produce video.

Cut

Copy.

Paste.

Delete video or images.

Undo operation.

6.4 Details; for more details go to **Help** in the menu or click **?**.

VI. Video Wave III

6.1 Installing Video Wave

A. Make sure the USB cable is not connected to your computer. Insert the CD into the CD ROM of your computer. The software is self-loading. *NOTE: The* M Eye *driver must be installed to use the camera with your computer.*

.

B. Continue to follow prompts and click "Next".
C. The software automatically defaults to your C:\Program files/MGI/Video Wave. *You MAY select browse if you would like to install to a different folder.* Then click "Next". Continue to follow the prompts. Please do nothing until prompted.
D. You will be asked to complete corresponding registration information. Then click "Next".
E. To complete the setup click "finish" when prompted. *You will be asked to restart your computer to complete the installation. Select "Yes" to restart now.*
F. Your computer has now successfully installed Video Wave software.

6.2 Using Video Wave

A. Click the MGI Video Wave III icon
B. The following screen will appear:
C. Connect ken-A-Vision M Eye to your computer and the capture icon for a live image.
D. After selecting the capture icon, the following options will appear: Video + Audio, Video, Audio, Image or Sequence, and save the image. Click on any of these to start capturing the movie.

Operation Mode Button Continued…

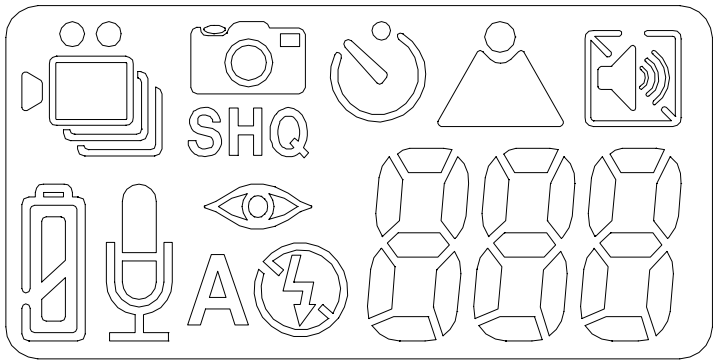
- Single shot High quality with timer (1024 x 768)
- Single shot Super High quality with timer (1280 x 960)
- Multiple shot (640 x 480)
- Video clip (320 x 240)
- Audio recording

B. Flash mode button: This button is to select the 4 modes of the flash:

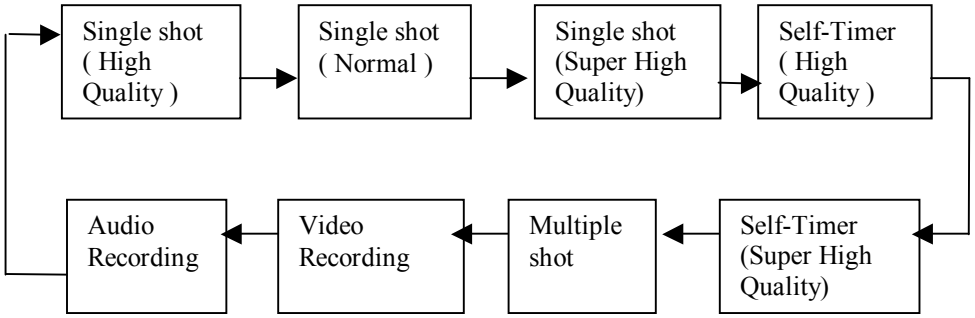
- Auto Flash
- Force Flash
- Red Eye Reduction
- Flash Off

2.2 Icons on LCD Screen

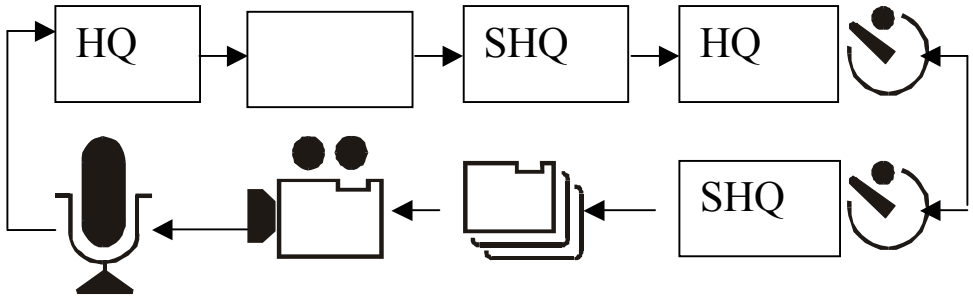
The figure below shows all the icons that are displayed on the LCD Screen pending the mode you select. *See next page for definitions.*



When the operation mode button is pressed once, it toggles the mode of operation. When the camera is first turned on, it is in the default state which is single shot (High quality). Each time the operation mode button is pressed, the mode is toggled as depicted below:



The LCD icons will display as below:



NOTE: Once the camera is connected to the computer, you can no longer toggle between these modes.

Add interesting effects in your photos.

Use your photo in numerous fun and practical projects.

Organize your vast collection of photos.

Share your photos with others.

Print your photos and projects.

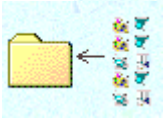
5.3 HOW TO DOWNLOAD PHOTOS FROM KEN-A-VISION M◈EYE CAMERA TO YOUR COMPUTER.

5.3.1 Connect Ken-A-Vision M◈Eye to the USB port in your computer and open Photo Suite III.

5.3.2 Click and select **Digital Camera (TWAIN).**

5.3.3 Enter file name prefix and click

5.3.4 To import images to your computer, click

5.3.5 To save all images to the folder, click 

5.4 Details: for more details go to **Help** in the menu.

V. Photo Suite III

5.1 Installing Photo Suite III

G. Make sure the USB cable is not connected to your computer. Insert the CD into the CD ROM of your computer. The software is self-loading. *NOTE: The* M Eye *driver must be installed to use the camera with your computer.*

H. Continue to follow prompts and click "Next".

I. The software automatically defaults to your C:\Program files/MCI/MGI Photo Suite III. *You MAY select browse if you would like to install to a different folder.* Then click "Next".

J. You will be asked to complete corresponding registration information. Then click "Next".

K. To complete the setup click "finish" when prompted. *You MAY be asked to restart your computer to complete the installation. Select "Yes" to restart now.*

L. Your computer has now successfully installed Photo Suite III software.

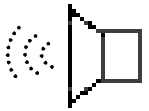
5.2 Using Photo Suite III

ICONS

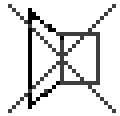
Get a photo into your computer.

LCD Icons Continued

Indicates the focus is right. Otherwise the icon flickers.

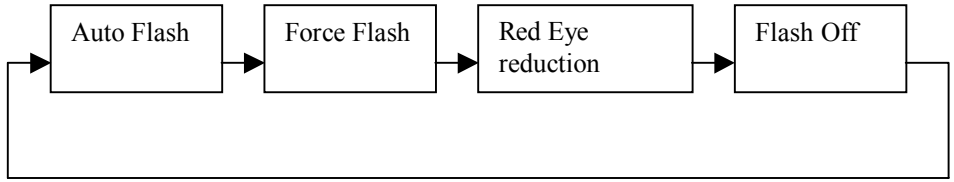


Indicates the speaker is ON. Push Mode Button for more than 3 seconds to turn the speaker ON/OFF.

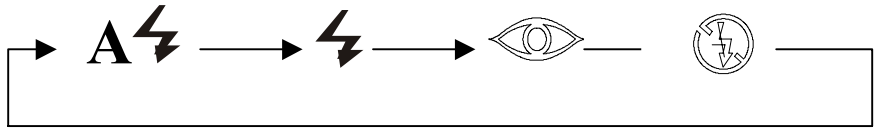


Indicates the speaker is OFF

When the camera is first turned on, the default state for flash is auto flash. When the flash mode button is pressed once, it toggles the mode of the flash as shown below:



■ When depressing the button, the LCD icon will display as below:



2.3 System requirements:

	Ken-A-Vision Drive	Photo Suite	Video Wave
Hardware	Win98, 2000, Win ME, XP	Same	Same
CPU	Min. MMX 166	Same	Min. P-II 266
Main Memory	Min. 32M	Same	Min. 64M
Space of Hard Drive	10M	80M	45M
VGA	Min. 2M, 800x600, Over 16BIT	Min. 2M, 800x600, At least 16BIT	Min. 2M, 800x600, At least 16BIT
Sound Card	-	-	Min. 16BIT
CD-Rom	Min. 4 times speed	Same	Same
USB port	Min. 1	-	-

4.2 Vision Explorer Software Icons

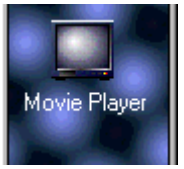
Capture a still photo
Click to take a snapshot of the live image.

Capture a movie
Click to record a movie of the current camera view.

Camera Control
The Camera Panel is used to show the current image by the camera.

Image Browser
The Browser Panel allows you to browse your computer to look for saved images.

Image Viewer
If an image has been captured or selected, the image viewer will display the image.



Movie Player
If a video has been selected or opened, this panel will play the movie.

Refer to the HELP menu for more details in using Vision Explorer software.

IV. Installing Vision Explorer

4.1 Installing Vision Explorer Software

M. Make sure the USB cable is not connected to your computer. Insert the CD into the CD ROM of your computer. *Your computer may ask you to reboot to initiate the installation.* The software is self-loading.

N. Continue to follow prompts and click "Next".

O. You will be asked to fill in corresponding information with your Full Name and Organization. Then click "Next".

P. The software automatically defaults to your C:\Program files. You MAY select browse if you would like to install to a different folder. Then click "Next".

Q. When installation is complete click "finish". *You MAY be asked to restart your computer to complete the installation. Select "Yes" to restart now.*

Your computer has now successfully installed Vision Explorer software.

Note: The M✵Eye *Driver must be installed to use the camera with your computer*

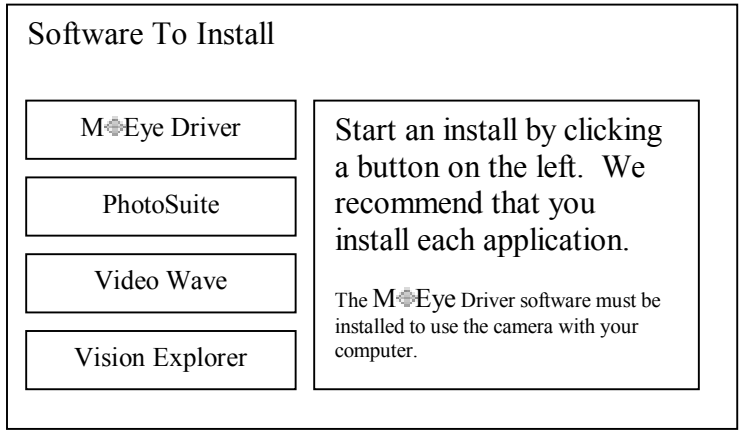
III. Software Installation

3.1 Ken-A-Vision M✵Eye Software consists of 5 software programs; Direct X, Photo Suite, Video Wave, Vision Explorer and Ken-A-Vision M✵Eye Driver.

3.2 Insert the Installation CD and the following should appear:

If the software install shield doesn't appear on your screen: Click on Start, Run, and Browse. **Select D drive (or any CD-ROM drive) and Click ken-a-vision.exe.**

3.3 Click *Install*. (If Direct X 8.1 or higher is installed in your computer already Windows XP, the installation continues automatically). Your computer will restart after the installation of Direct X. After restarting, continue the installation process without selecting Direct X.


Software To Install
M Eye Driver
PhotoSuite
Video Wave
Vision Explorer
Start an install by clicking a button on the left. We recommend that you install each application.
The M Eye Driver software must be installed to use the camera with your computer.

3.4 Click to select M Eye Driver. The installation continues automatically. Your computer will ask you to restart. Click Yes.

3.5 Click to select each software for installation then, click install

3.6 Click *Finish*, when each software has been installed. Installation proceeds until the message *Installation Completed* appears.

Note: M Eye *Driver must be installed to operate the camera with your computer.*

3.6 Checking the Device Installation

To check if the Ken-A-Vision M Eye has been installed:

1. Plug in M Eye Camera
2. Click on Start, Settings, Control Panel.
3. For Windows 98 users: Select Device Manager. For Windows XP and 2000 users: Select System, then Hardware, then Device Manager.
4. Look for **"Imaging Device"** and double-click it. You should find the device **"Smart Cam Deluxe"**.
5. Double-click on the Smart Cam Deluxe and check the "**Device Status**" area if the device is working properly.